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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/898,060 | 07/05/2001 | Shuuji Yano | Q65306 | 1329 |

7590 02/12/2004

SUGHRUE MION ZINN MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue, NW
Washington, DC 20037

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| EXAMINER |
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TRUONG, BAO Q

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| ART UNIT | PAPER NUMBER |
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2875

DATE MAILED: 02/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

H.D.

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|------------------------------|--------------------------------------|------------------------------------|--|
| Office Action Summary | Application No. 09/898,060 | Applicant(s) YANO ET AL. | |
| | Examiner Bao Q. Truong | Art Unit 2875 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Masuda et al. [US 6,340,999].

Regarding claim 1, Masuda et al. disclose a LCD having a light pipe [3] with light emitting means [3c], a light source [2], a liquid crystal display panel [5] with a reflective layer [7] and an adhesive layer [10a] having a refractive index [1.38] lower than a refractive index [1.49] of the light pipe [3]; wherein, the light pipe [3] with a polarization section [4] is attached to the LCD panel [5] via another adhesive layer (figures 1, 2 and 10, column 2 lines 9-13, column 10 lines 50-65, column 11 lines 24-30 and 50-54, column 15 lines 25-39, column 16 lines 23-28).

Regarding claim 2, Masuda et al. disclose a refractive index [1.38] of the adhesive layer [10a] and a refractive index [1.49] of the light pipe [3] (figures 1 and 10, column 11 lines 50-54, column 16 lines 23-28).

Regarding claims 3 and 4, Masuda et al. disclose the adhesive layer [10a] having a full light transmittance of 90% or more, or its haze value of 10% or less (column 16 lines 23-28).

Regarding claim 5, Masuda et al. disclose the light pipe [3] having a light emitting means [3c] on the upper surface and an emitting light from the lower surface [the surface contact with layer 10, 10a] having a direction within 30 degrees from the reference plane of the lower surface (figures 1 and 10).

Regarding claim 6, Masuda et al. disclose the light pipe [3] having a light emitting means [3c], which composes of a plurality of asperities triangular [3f] with a tile angle [from a reflective portion 3e] of 35 – 48 degrees (figures 1 and 10).

Regarding claim 7, Masuda et al. disclose the light pipe [3], a light emitting means being a structure of prism-like asperities [3c] arranged at pitches of 390 μm , a reflective portion [3e] tilt angle of 35-48 degrees, a length of the reflective portion [3e] being 20 μm , a propagation portion [3d] tilt angle of 0 – 10 degrees, a length of the propagation portion [3d] being 370 μm (figures 1 and 10, column 11 lines 1-23).

Regarding claim 8, Masuda et al. disclose the asperities [3f] having ridges [3e] with in a range of ± 30 degrees (figures 1 and 10, column 11 lines 1-23).

Response to Amendment

4. Applicant's amendment filed 12/10/2003 have been fully considered but they are not persuasive because Masuda et al. disclose the light pipe [3] with a polarization section [4] is attached to the LCD panel [5] via another adhesive layer. Therefore, there is no air layer between them (figures 1 and 2, column 2 lines 9-13, column 11 lines 24-30).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bao Q. Truong whose telephone number is (571) 272-2383. The examiner can normally be reached on Monday-Friday (7:00 AM - 3:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra L. O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bao Q. Truong
Examiner
Art Unit 2875

BQT



Sandra O'Shea
Supervisory Patent Examiner
Technology Center 2800